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CSPE 1988

MEMORANDUM

DATE: September 13, 1988
TO: Keith, Peter L., Sheila
FROM: Pat
SUBJECT: U.K. Newsletters
CC: Randi, Peter C., Alice

I noticed when in London that the U.K. CSPE newsletter is still being produced on headed notepaper method/style. I did have a brief discussion with Peter L. on upgrading this to the way we do it here now.

Attached is an example of our latest CSP newsletter. Note the change in paper and use of color, as well as the fact that the Mac allows us to use the column format which is much more professional looking.

Peter and I discussed getting the U.K. newsletter(s) over to this format for 1989 products. By faxing the draft (or overnight DHL the Microsoft Word diskette) to Mountain View, and faxing the review copy back to the U.K., we should be able to produce it with little loss of time.

It should be produced on U.K. A4 size paper and the holes punched to U.K. standard binder specifications.

Sheila, please have Doug look into printing on A4 size paper, and get specifications for the punched holes.

Let's get this implemented for 1989.

INPUT



INPUT®

Route:

Service Management Focus

A Monthly Publication from INPUT's Customer Service Program

August, 1988

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★ This Month's Focus: IBM Expands Role of Remote Support

Intellog Trace Offers Guaranteed On-Site Repair Services for IBM Midrange Systems

In a move to give itself a greater competitive edge in the IBM System 3X computer maintenance marketplace, INTELOGIC TRACE is now offering guaranteed on-site repair services for IBM System 34 and 36 equipment. Under the new program, customers will receive credit equal to the monthly System 34 or 36 maintenance fee if INTELOGIC TRACE fails to repair the equipment within the specified time frame.

INTELOGIC TRACE has outlined a standard guaranteed plan that provides customers located near 22 major metropolitan areas up to 30 percent off IBM's list prices for on-site computer maintenance. Companies located within a 25-mile radius of the 22 major cities will receive a guaranteed four-hour response, and companies located within 50 miles of one of the 22 cities will receive a six-hour response guarantee. INTELOGIC TRACE guarantees that the IBM equipment will be up and running within 12 PPM (principal

period of maintenance) hours from the time the customer engineer arrives at the customer's site. For customers located outside the 50-mile radius of one of the 22 metropolitan areas, guaranteed response and repair times will be handled on an individual basis.

As a bonus to System 34 and 36 users, INTELOGIC TRACE will also start offering seven-day-a-week, 24-

Continued on Page 2

IBM Offers Prepayment Discounts through New Extended Maintenance Option Amendment

On top of the four amendments to the IBM Maintenance Agreement already in place, IBM now offers customers prepayment discounts on maintenance charges for new components of selected midrange systems.

Called the Extended Maintenance Option (EMO) Amendment, the new option offers a guaranteed maintenance price for a fixed term of three, four, or five years. Under EMO, the customer receives a maintenance price reduction ranging from 11% to 26%, depending on the length of the term selected and the type of machine covered by the amendment. Customers may com-

bine the price reductions offered under EMO with discounts offered under CSA or MRSA, provided that coverage is maintained under those amendments for the duration of the EMO term. Machines already covered by the Central Facility Maintenance Service (CFMS) Amendment or the Volume Maintenance Amendment (VMA) are not eligible for EMO.

The new service offering certainly seems attractive. One advantage to EMO is the price guarantee that comes with prepayment of the maintenance fees. Even though the customer is "locked in" to a multiyear service agreement, EMO offers protection

from price hikes for the length of the EMO term.

This new "rider" to IBM's CSA/MRSA introductions provides TPMs with a new competitive challenge to meet in the service arena. Penetration of IBM's installed base has already become more difficult to achieve because of CSA/MRSA. Since EMO is only offered to customers at the time of purchase, this new option allows IBM to effectively capture and keep new customers. The challenge for TPMs, then, is to figure out not only how to get their feet in the door, but how to pry the door open in the first place. ■

Intellogic Trace... from page 1

hour-a-day coverage for System 34 and 36 equipment at no additional cost over its standard repair and support services, which offer 11/5 coverage.

"Most System 3X computer maintenance agreements are based on promises rather than guarantees," said Clark Mandigo, IT's president and CEO. "By guaranteeing our repair services, we have gained an important competitive advantage and established a new industry standard for System 3X computer maintenance."

As INPUT found in its 1988 Small-Systems User Requirements Survey, most vendor service organizations manage to achieve average repair times of 4.7 PPM hours. Still, in terms of logistics, guaranteeing repair times is a tricky venture. INTELOGIC TRACE shows a lot of confidence in its abilities by being perhaps the only national service organization to guarantee repair times to date. ■

Guaranteed Response Times

Speaking of guarantees, we asked a few service vendors whether they offered guaranteed response times.

Among small-systems vendors, PRIME guarantees response times for its Preferred Service customers. For customers within 25 miles of a PRIME service location, PRIME offers a two-hour guaranteed response. For customers located within 26-100 miles, a four-hour response is guaranteed. Customers outside a 100-mile radius receive no guarantee. If PRIME does not meet the committed response time, it will return a 5% credit on the total monthly maintenance charge, with the maximum credit in any month not exceeding one month's maintenance fee.

WANG offers guaranteed response times with its premium WangCare Plus service. For customers within 25 miles of a WANG service location, WANG guarantees a response time of

2 hours. For those located between 26 and 50 miles, WANG guarantees a 3-hour response time. WANG will return 25% of the WangCare Service premium as a maintenance credit.

IBM does not guarantee response times, but it does quote a response time of 4 hours.

Among TPMs, TRW offers 2-hour response time guarantees for IBM equipment (excluding remote locations) with its multiyear Service Plus agreement.

CDC also does not guarantee response times, but its service literature does quote an average response time of 2 hours. A CDC spokesman questioned response times' usefulness to the customer when it comes down to resolving critical problems.

CDC may have a point in that response time guarantees mean nothing

Continued on Page 3

ing when a critical down situation exists. The maintenance credit the customer receives is small compared to the potential loss of revenue suffered if the service provider cannot repair the system. However, response time guarantees—and repair time guarantees like that of Intellogic Trace—are becoming more widely used by service vendors as a marketing tool, a value-added option to premium service packages, or a show of confidence in its response record. As response and repair statistics shrink due to organizational fine-tuning and advances in remote technology, more service vendors may find that they are not risking much when they offer such guarantees. ■

IBM Expands Maintenance Support to Third-Party Equipment

In recognition of the trend toward the increasing use of multivendor systems, IBM announced that it will start to offer maintenance coverage of third-party equipment that is integrated with IBM machines.

IBM was already supporting selected third-party peripherals attached to IBM computers prior to the announcement, but the new service, called Technical Services Management, offers coverage of a wider range of non-IBM equipment. Rather than being IBM's bid to enter the third-party maintenance arena, IBM's introduction of the new service is simply an attempt to offer single-source support. IBM plans to farm out the repair work to be done on third-party equipment to subcontractors with the appropriate expertise.

In previous years, manufacturers had been losing business to TPMs because the latter offered, among other things,

a one-stop solution to customers' service needs. However, as INPUT found in its 1987 TPM User Service Requirements survey, the TPMs' ability to offer multivendor support has decreased in importance among the criteria that customers use in selecting a TPM over a manufacturer. Even though this factor topped the list of selection criteria three years ago, its importance has declined because manufacturers themselves have introduced their own multivendor support offerings.

This latest move by IBM diminishes yet another competitive advantage that TPMs have over the equipment vendor. TPMs have established themselves as reputable sources of service, with users rating TPMs high on the quality of service they deliver. TPMs may have to rely more on this criterion to attract and keep new customers from Big Blue. ■

Alert and Escalation Procedures

We recently received a hotline question regarding "alert and escalation" procedures that a service organization undertakes when a system is down for an extended period. A number of small-systems suppliers were contacted about their escalation policies.

HEWLETT-PACKARD has in place the Escalation Management Program, which kicks in when an HP representative recognizes that a problem cannot be solved within the expected time frame. The HP representative alerts an HP program manager, who assumes the role of Prob-

lem Site Manager (PSM). The PSM starts several processes going: remote diagnostics are begun while HP's worldwide problem data bases are accessed to isolate and analyze the problem; in the meantime, the PSM works with the customer to draw up a timetable and identify specific actions to be taken. HP Customer Escalation Centers or Country Response Centers coordinate all resources and recommendations until the problem is resolved.

PRIME implements its alert and escalation procedure when a system down situation exists and the Customer

Service Representative has not been able to isolate the problem within two hours of arrival at the customer's site. The representative notifies PRIME management. If the problem has not been identified nor a resolution undertaken within the guaranteed response time plus two hours, the representative enlists the aid of the Regional Support Center. This constitutes a "raising of the alert."

Escalation procedures start when six hours of hands-on time have elapsed without identification of the problem. Regional Technical Specialists

Continued on Page 4

Alert and Escalation Procedures. from page 3

notify the Prime Customer Support Center at PRIME's corporate headquarters, which then becomes responsible for finding the problem and the resolution. The Customer Service Problem Management Support Group, working closely with the Customer Support Center, coordinates the activities of PRIME's resources, including the Engineering and Research and Development Group and the Field Parts Support Group.

At GOULD, the progression up the hierarchy goes from the field engineer, to the area manager, to the regional manager, and finally to the World Support Center. GOULD uses a call management center system and makes the process visible to all levels of management. The regional response center determines the timetable for escalation, basing the time increments on the urgency to the user and the criticality of the system.

DEC starts the process when a call comes in, implementing remote diagnostics while a local field office is notified. Once the field engineer arrives, the F.E. can request assistance from either the local response center or from the corporate product support center. The branch manager is automatically notified by the computer. The area manager is brought into the loop, and escalation can involve management up to the VP level or even to president Ken Olsen if no resolution is found within a certain time frame. ■

More Info on DEC's New Field Service Product Portfolio

DEC's new field service product portfolio, diagrammed in last month's Service Management Focus, combines hardware and software service contracts that offer savings of 10-15 percent compared with other types of service offerings.

According to a DEC spokesman, the new service offerings were rolled out for products coming out of warranty, combining hardware and software support to match the warranty support.

The combined services provide a single phone number for assistance, regardless of the nature of the problem. Once the call is received, the call is routed to the appropriate support center. The new services are meant to address the growing complexity of systems that makes it harder for users to distinguish between software- and hardware-related problems.

The new field service product portfolio covers the following VAX systems: the VAXstation 2000, MicroVAX II, VAXstation II GPX, MicroVAX/VAXstation 3000 series, VAXstation 8000, VAX88XX, and 62XX. DEC plans to extend coverage to all VAX systems by this fall. ■

Hewlett-Packard Announces the Opening of New Atlanta Customer Support Center

HEWLETT-PACKARD recently announced the opening of a new Customer Support Center that combines five main support operations at a single location.

Located in Atlanta, the new facility will hold the Customer Network Center, the Atlanta hub of the North American Response Center, the Customer Education Center, the Project Center, and a repair depot at the Regional Customer Service Center. The Customer Support Center will house more than 350 professional, technical, and support workers who serve well over 16,000 customers.

The Atlanta Customer Network Center, in addition to those in England and

Singapore, provides design, project management, operation, training, and support of customer X.25 private-packet networks. The network center is staffed with network consultants who have technical expertise in wide-area networking in multivendor environments, as well as with operators who can remotely manage and operate any multivendor HP private-packet network according to the level of service that the customer wants.

The North American Response Center, connected to 31 centers worldwide, is staffed by engineers who take phone calls from customers,

Continued on Page 5

diagnose problems, and prescribe corrections for HP equipment. Problems and solutions handled by each center are transmitted across HP's data-communications network to all centers, giving HP engineers access to a large pool of support infor-

mation. From the response center, HP provides both predictive support and remote diagnostic support.

Professional instructors at the Customer Education Center teach classes

on nearly all of HP's computer and instrument products and services, while application engineers at the Project Center provide the expertise to design, build, implement, and maintain tailored multivendor systems solutions for customers. ■

IBM Expands Role of Remote Support

IBM AS/400 Electronic Customer Support

On June 21, 1988, IBM finally unwrapped its much heralded "replacement" to its 3X mini-computer line. As is common in an industry where both the computer user and vendor communities keep an anxious eye on new product announcements from "Big Blue," the new AS/400 family, which had carried the code name "Silverlake," was expected to help shore up IBM's small-system line and help slow the

penetration of Digital Equipment Corporation into traditional IBM accounts.

With the AS/400, IBM has identified four key concerns of small system users: ease of use, ease of existing application migration, software development, and connectivity. Integral to improving ease of use (including service and support) is the provision of an integrated set of support functions IBM calls Electronic Customer Support.

Electronic Customer Support basically provides end users with local and remote support tools such as problem management facilities and an integral problems data base. In addition, Electronic Customer Support provides a connection to IBM Service Support System, enabling IBM to support AS/400 users from centralized support centers. Lastly, Electronic Customer Support expands the role of service to include marketing and technical support by providing access to the product planning and technical information contained in the IBM Information Network.

FEATURES OF ELECTRONIC CUSTOMER SUPPORT

- Improved Remote Diagnostics and Support
- Access to Product and Service Information
- Exchange Technical Information with IBM
- Local and Remote Data bases that Can Be Customized
- Resource and Configuration Management

Access to Service and Product Information

Included as part of the Operating System AS/400™, a Question and Answer (Q&A) facility is provided to local and remote question-and-answer data bases. This provides users access to information contained in a question-and-answer format that is continually expanded by the end user, IBM, or any other "supplier of customer support" (VARs, VADS, and possibly third-party maintenance providers). Users can create and maintain their own proprietary data bases, as well

Continued on Page 6

IBM Expands Role

..... from page 5

as have access to IBM-supplied national or international data bases.

In addition, IBM provides access to support and planning information data bases contained in the IBM Information Network via IBMLink. This free dial connection allows users access to such marketing information as announcement letters, education announcements and schedules, publication catalogs, product information, and technical support information on a wide range of IBM products and services. In addition, customers can use this connection to contact IBM branch office personnel.

Later in the year, IBM will expand this capability by incorporating the ability to exchange technical information with the IBM support system.

The system also assists the user to set up and maintain resource and configuration management capabilities that maintain and display all machine and software inventory.

Increased User Involvement

Along with providing access to problems data bases that will assist AS/400 users in supporting their own systems, the AS/400 was designed with built-in service automation functions to further improve serviceability. For example, the system units are capable of performing self-diagnosis and automatic problem isolation and recovery. When this is not possible, a Problem Analysis and Resolution (PAR) is provided that includes extended diagnostics for identifying the failed part(s). Electronic Customer Sup-

port also allows the end user to analyze perceived problems not reported automatically by the system. When a failure is reported and analyzed, and needed parts are identified, the system contacts IBM Service. A service representative is dispatched with the needed part(s) or on-site part(s) replacement (a process that IBM calls "Fast Path").

The system also provides concurrent problem management, allowing access to problem management functions while the AS/400 continues normal operations. System-detected hardware problems, licensed internal code (microcode) problems, and some software problems can be isolated and stored with the appropriate resolution in the system. In addition, a Program Temporary Fix (PTF) assists the user in managing software and licensed internal code changes. Lastly, IBM will provide tools to experienced users that allow access to vertical licensed internal code service facilities.

Vendor-supplied remote software support is provided via the system's copy screen function. This enables a service representative or central support site to do remote problem determination by allowing the service representative to view the AS/400 operator's screen as the operator goes through system-directed problem determination steps.

AS/400 users may also receive round-the-clock telephone support for software problems through IBM Central Service by calling a toll-free number.

IBM also offers an extensive list of educational support services for AS/400 users, including on-line Tutorial System Support (TSS), which covers basic system operations and is included with the AS/400 operating system. In addition, IBM offers six optional courses, called Discover/Education, on a fixed-fee basis.

Competitive Position

The Electronic Customer Support function of the AS/400 is one of the most extensive applications of increased service automation tools in a small system. The closest competitive application is Digital Equipment Corporation's VAX Integrity Monitoring System (VAXSIM), which allows predictive maintenance for users of VAX systems from a remote location (in Colorado Springs, CO). VAXSIM allows predictive maintenance by monitoring system performance, catching and storing intermittent and more critical system interruptions, and signaling before threshold levels occur.

DEC technical support staff have access to an artificial-intelligence diagnostic tool called Standard Package for Error Accounting and Reporting (SPEAR). SPEAR is built around a data base of known problems and their indicators. SPEAR will provide the technical support staff with a list of three potential problems, ordered by degree of likelihood.

DEC allows users access, albeit limited, to a problems data base called STARS, which contains over 1,100 technical articles about DEC hardware and software products. Although the primary users of STARS are DEC support personnel, DEC does provide an edited version of the data base to users through the Digital Software Information Network (DSIN).

The key difference between DEC's service automation offerings and IBM's (as incorporated in the AS/400) is that IBM places greater emphasis on increased user involvement in the service process. While it is clear that both companies recognize and acknowledge the need for

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increased usage of automated service tools to improve service performance and productivity, IBM's newest support announcement reflects IBM's position that users can expect to increase their involvement in service and support if they expect increased system availability (through improved support) and lower support prices. To IBM's credit, IBM is not requiring such increased involvement without offering expansive tools to improve users' ability to support themselves.

Impact on the Service Market

Regardless of the success of the AS/400 as a product competing with popular small systems from Digital Equipment Corporation, the AS/400 does provide a clear picture of where IBM sees the future of small systems (and perhaps all) service and support. The AS/400 service and support features address two key issues in small systems service: increased participation of users in supporting their own systems, and increased use of service automation tools in providing efficient and effective hardware maintenance and (more significantly) software support. By automating certain service functions while increasing user participation in the support process, IBM can respond to user pressure for more service at lower prices.

By including product planning and marketing information in the information accessible to users, IBM expands the traditional definition of service and support and moves closer to INPUT's suggested goal of "performance support."

The Q&A facility that allows any user, software supplier, or VARS/VADS to create and modify special-

ized data bases also allows third-party maintenance companies the same capability. This will allow TPMs to offer their AS/400 service customers their own problems data bases, in addition to those developed by IBM.

TPMs will also be able to benefit from accessing the IBM Information Network via IBMLink, gaining access to a wide range of IBM product and technical information.

The Electronic Customer Support announcement also contains a surprise regarding access to microcode (referred to as vertical licensed internal code in the announcement). In the past, IBM assumed responsibility for microcode fixes. This announcement states that "experienced" AS/400 users will be given access to microcode service facilities. ■

SERVICE IMPACT OF AS/400

- Increased Involvement of Users
- Increased Use of Service Automation
- Expanded Definition of Support
- Liberalized Access to Information and Support

About INPUT[®]

INPUT provides planning information, analysis, and recommendations to managers and executives in the information processing industries. Through market research, technology forecasting, and competitive analysis, INPUT supports client management in making informed decisions.

Continuous-information advisory services, proprietary research/consulting, merger/acquisition assistance, and multiclient studies are provided to users and vendors of information systems and services (software, processing services, turnkey systems, systems integration, professional services, communications, systems/software maintenance and support).

Many of INPUT's professional staff members have more than 20 years' experience in their areas of specialization. Most have held senior management positions in operations, marketing, or planning. This expertise enables INPUT to supply practical solutions to complex business problems.

Formed as a privately held corporation in 1974, INPUT has become a leading international research and consulting firm. Clients include more than 100 of the world's largest and most technically advanced companies.

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**A One-Day
Seminar**

Customer
 Service Markets
 in Europe and
 the U.S.A.

Thursday
 April 21st 1988

Meridien Hotel
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INPUT One-Day Seminar

Customer Service Markets in Europe and the U.S.A.

The Seminar

The customer service market continues to change rapidly as the result of the ever deepening integration of computers and communications technology into the workings of industry, commerce and institutions.

INPUT monitors the strategic trends and issues, particularly with reference to the development of new customer service opportunities. This seminar will examine current trends and issues in both the European and the US marketplaces to provide delegates with a forward basis for managing industry changes and profiting from future business opportunities.

Particular reference will be made to:

- Customer Service Markets—Europe and the USA
- Independent Maintenance Markets (TPM)
- Service Products
- User Needs from Service

The seminar objectives are to provide delegates with:

- an update on the changing structure of the European and US customer service markets.
- an appreciation of the factors that lead to success in customer service now and in the future.
- the opportunity to meet with other senior managers in customer service to exchange views and share experiences.

The Speakers



Peter Lines is INPUT's Director of European research in the London office. He is a specialist in the European services industry and has 20 years experience in marketing, systems analysis and project management. A graduate of L.S.E. with a B.Sc. in economics, he has worked for English Electric Computers, ICL and Sperry Univac.



George Hunter is a Vice President with INPUT USA. He has 28 years of business experience, including 15 years in senior management and more than 6 years in the communications and processing services sectors. His consulting responsibilities include sales and marketing strategies, strategic planning and merger/acquisition strategies. He received a B.A. degree from St. Mary's College.

The Industry Panel

Mike Godman has been the Technical Director of Synapse Computer Services plc since 1980. Prior to this, he worked in software development with Altergo.

Richard Grace is Business Planning Manager for British Olivetti Ltd. He is also UK Director of the UK AFSM.

Conference Agenda

9:00 - 9:30	Registration and Coffee	11:30 - 11:45	Break
9:30 - 9:40	Welcome and Chairman's Introduction— Keith Hocking, INPUT Europe	11:45 - 12:45	Customer Service Markets in the USA George Hunter, INPUT USA
9:40 - 10:30	European Trends in Customer Service—Peter Lines and Ken Carter, INPUT Europe	12:45 - 2:15	Lunch
10:30 - 10:45	Coffee and Information Exchange Break	2:15 - 3:45	Independent Software Maintenance Mike Godman, Technical Director Synapse Computer Services plc
10:45 - 11:30	European Trends in Customer Service (cont.) and Third-Party Maintenance Markets— Peter Lines and Mithra Alikhani, INPUT Europe		Third-Party Service: A Manufacturer's View Richard Grace, Manager, Central Technical Support, British Olivetti Ltd.
			Questions

Seminar Registration

Please return to: Jill Loach, INPUT LTD., 41 Dover Street, London W1X 3RB
Tel: 01-493 9335 Telex: 27113 Fax: 01-629-0179

Please enroll the following participant(s) at a fee of £250 for the first delegate and £175 for each additional delegate. The fees exclude VAT but include lunch, morning and afternoon refreshments and seminar notes.

Name _____ Organisation _____
Title _____ Address _____
Name _____
Title _____
Signature _____ Date _____

Our cheque (payable to INPUT, LTD.) is enclosed for the following amount:

Individual Delegate at £250 £ _____
Additional Delegate(s) at £175 £ _____
Total £ _____
VAT at 15% (UK only) £ _____
Grand Total £ _____

A full VAT invoice will be issued to confirm acceptance of booking. A confirmed reservation may be cancelled without penalty up to April 7th, 1988.

About INPUT

INPUT provides planning information, analysis and recommendations to managers and executives in the information processing industries. Through market research, technology forecasting, and competitive analysis, INPUT supports client management in making informed decisions. Continuing services are provided to users and vendors of computers, communications, and office products and services.

The company carries out continuous and in-depth research. Working closely with clients on important issues, INPUT's staff members analyze and interpret the research data, then develop recommendations and innovative ideas to meet clients' needs. Clients receive reports, presentations, access to data on which analyses are based, and continuous consulting.

Many of INPUT's professional staff members have nearly 20 years experience in their areas of specialization. Most have held senior management positions in operations, marketing, or planning. This expertise enables INPUT to supply practical solutions to complex business problems.

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26th August 1988

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#If Not Empty,Name#VNameV
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Dear VSalutationV

THIRD PARTY MAINTENANCE AND PRICING STUDIES

Input has just completed the two studies below and they will be available in the next few weeks.

Pricing and Profitability in Western European Customer Services

The report presents and analyses trends in vendor pricing for both hardware and systems software customer service in Western Europe. The report provides a comparative analysis of the interrelation of pricing and user perceptions.

Pricing issues are identified and the activating mechanisms that influence User perception of price are explained. Challenges and opportunities are discussed in terms of marketing strategies and creative approaches to Vendors' cost reduction of service.

Independent Maintenance in Western Europe 1988 - 1993

This report surveys the Western European market for independent maintenance.

The report examines both user and vendor perceptions of independent maintenance and discusses the part played by hardware equipment manufacturers in this market. A forecast for the growth of independent maintenance in Western Europe for the period 1988 to 1993 is given in the report.

In addition, the report includes an analysis of individual country markets, namely: France, Italy, the Netherlands, Spain, Sweden, the UK and West Germany. Other topics discussed in this report are: the evolution of independent maintenance in Europe, market opportunities, quality standards, mergers and acquisitions and competition.

The attached indexes and lists of exhibits give full details of the studies.

the 1990s, the number of people in the UK who are aged 65 and over has increased by 1.5 million (1990–2000) and is projected to increase by a further 1.5 million by 2020 (Office for National Statistics 2001). The number of people aged 65 and over is projected to increase from 10.5 million in 1990 to 12.5 million in 2020. The number of people aged 65 and over is projected to increase from 10.5 million in 1990 to 12.5 million in 2020. The number of people aged 65 and over is projected to increase from 10.5 million in 1990 to 12.5 million in 2020.

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the 1990s, the number of people in the UK who are employed in the public sector has increased by 1.5 million, from 2.5 million in 1980 to 4 million in 1995. The public sector has grown from 10% of the economy to 15% of the economy.

There is a growing awareness of the need to improve the efficiency of the public sector. The government has set a target of reducing the public sector deficit by 1% of GDP by 1997. This target is being achieved by a combination of measures, including the introduction of new taxes, the reduction of public sector expenditure, and the restructuring of the public sector. The restructuring of the public sector is being achieved by a combination of measures, including the introduction of new management practices, the restructuring of public sector organisations, and the restructuring of public sector services.

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PRICING AND PROFITABILITY

IN

WESTERN EUROPEAN CUSTOMER SERVICES

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the 1990s, the number of people with a mental health problem has increased by 50% (Mental Health Foundation 1999). The prevalence of mental health problems in the UK is estimated to be 10% (Mental Health Foundation 1999).

There is a growing awareness of the need to address the needs of people with mental health problems in the workplace. The Department of Health (1999) has published a strategy for mental health care in the UK, which states that 'the government is committed to ensuring that people with mental health problems are able to live and work in the community'. The strategy also states that 'the government is committed to ensuring that people with mental health problems are able to access the services they need to live and work in the community'. The strategy also states that 'the government is committed to ensuring that people with mental health problems are able to access the services they need to live and work in the community'.

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the 1990s, the number of people in the world who are undernourished has increased from 600 million to 800 million. The number of people who are malnourished has increased from 1.2 billion to 1.5 billion. The number of people who are obese has increased from 100 million to 300 million.

The World Bank has estimated that the number of people who are undernourished in the world will increase from 800 million in 1990 to 1.2 billion in 2020. The number of people who are malnourished will increase from 1.5 billion in 1990 to 2.2 billion in 2020. The number of people who are obese will increase from 300 million in 1990 to 600 million in 2020.

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the 1990s, the number of people in the UK who are aged 65 and over has increased by 1.5 million (1990–1999) and is projected to increase by a further 1.5 million by 2010 (Office for National Statistics 2000). The number of people aged 65 and over in the UK is projected to increase from 10.5 million in 1999 to 12.5 million in 2010, with the number of people aged 75 and over increasing from 4.5 million to 5.5 million in the same period (Office for National Statistics 2000).

There is a growing awareness of the need to develop strategies to meet the needs of the ageing population. The Department of Health (2000) has identified the need to develop a 'new paradigm' for the care of the elderly, which is based on the principles of 'active ageing' and 'positive ageing'. The 'new paradigm' is based on the idea that ageing is a process, rather than a state, and that the needs of the elderly are not fixed, but change over time. The 'new paradigm' is based on the idea that the elderly should be able to live independently, and to participate in the community, and that the needs of the elderly should be met through a combination of formal and informal care.

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There is a growing awareness of the need to address the needs of older people in the community. The Department of Health (1999) has published a strategy for older people, which sets out a vision for the future of older people's services. The strategy is based on the principle of 'active ageing', which is the idea that older people should be able to live independently, actively and with dignity. The strategy also sets out a number of key objectives, including: to improve the health and well-being of older people; to promote social inclusion and participation; and to ensure that older people have access to the services and support they need.

The strategy is a key document for the development of older people's services in the UK. It provides a framework for the development of policies and services, and it sets out a number of key principles that should guide the development of older people's services.

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INDEPENDENT MAINTENANCE IN WESTERN EUROPE

1988 - 1993

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the 1990s, the number of people with a diagnosis of schizophrenia has increased in the United Kingdom (Meltzer 1996). The prevalence of schizophrenia in the United Kingdom is estimated to be 1.2% (Meltzer 1996).

There is a growing awareness of the need to improve the lives of people with mental health problems. The United Kingdom has a long history of institutional care, but in the 1990s there has been a move towards community care. This has led to a growing emphasis on the need to improve the lives of people with mental health problems. The United Kingdom has a long history of institutional care, but in the 1990s there has been a move towards community care. This has led to a growing emphasis on the need to improve the lives of people with mental health problems. The United Kingdom has a long history of institutional care, but in the 1990s there has been a move towards community care. This has led to a growing emphasis on the need to improve the lives of people with mental health problems.

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 - 6 TPM Vendor Market Growth - France
 - 7 Leading TPM Vendors in France
 - 8 French Vendor Comments on Growth Factors
 - 9 Independent Maintenance Market Growth - Italy
 - 10 Independent Maintenance Market Forecast - Italy
 - 11 TPM Vendor Market Growth - Italy
 - 12 Leading TPM Vendors in Italy
 - 13 Italian Vendor Comments on Growth Factors
 - 14 Italian Vendor Comments on Factors Inhibiting Growth
 - 15 Independent Maintenance Market Growth - Netherlands
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 - 19 Dutch Vendor Comments on Growth Factors
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 - 21 Independent Maintenance Market Growth - Sweden
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 - 24 Leading TPM Vendors in Sweden
 - 25 Swedish Vendor Comments on Growth Factors
 - 26 Independent Maintenance Market Growth - Spain
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 - 30 Spanish Vendor Comments on Growth Factors
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 - 32 Independent Maintenance Market Growth - UK
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 - 34 TPM Vendor Market Growth - UK
 - 35 Leading TPM Vendors in the UK
 - 36 UK Vendor Comments on Growth Factors
 - 37 UK Vendor Comments on Factors Inhibiting Growth
 - 38 Independent Maintenance Market Growth - West Germany
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 - 41 Leading TPM Vendors in West Germany
 - 42 German Vendor Comments on Growth Factors
 - 43 German Vendor Comments on Factors Inhibiting Growth

the 1990s, the number of people with a mental health problem has increased by 50% (Mental Health Foundation 1999). The prevalence of mental health problems has increased in the general population, and the incidence of mental health problems has increased in the prison population.

There is a growing awareness of the need to address the mental health needs of prisoners. The Department of Health (2000) has published a strategy for mental health services, which includes a commitment to improve the mental health of prisoners. The Department of Health (2000) has also published a strategy for mental health services, which includes a commitment to improve the mental health of prisoners.

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- 46 Independent Maintenance Market Growth - Belgium
- 47 Independent Maintenance Market Forecast - Belgium

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- 1 TPM Usage by System Component
- 2 Number of TPM Users by Country
- 3 Percentage CPU TPM Users in Europe
- 4 Percentage Peripheral TPM Users in Europe
- 5 Percentage PC TPM Users in Europe
- 6 Reasons for Using TPM
- 7 Ranking of Reasons for Using TPM
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- 9 Ranking of Reasons for Not Using TPM
- 10 Average TPM User Satisfaction and Importance
Ratings with Price of Maintenance
- 11 Average TPM User Satisfaction and Importance
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